

センター設置機器等を利用した研究報告

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	発表論文(タイトル, 著者名, 掲載誌名, 巻, ページ, 年)	利用機器
1	" Conversion of methane to C ₂ and C ₃ hydrocarbons over TiO ₂ /ZSM-5 core-shell particles in an electric field " Qiao Han, Atsuhiko Tanaka, Masayuki Matsumoto, Akira Endo, RSC Adv., 9, 34793 (2019)	SEM [JSM-7001F] (走査電子顕微鏡) ICP-AES [ICPE-9000] (ICP 発光分光分析装置) Raman [inVia Reflex] (ラマンマイクロスコプ)
2	" Catalytic Carbonization of Acenaphthene for the Preparation of Ordered Mesoporous Carbon CMK-1 toward Application as Electrochemical Double-layer Capacitor Electrode with Ionic Liquid Electrolyte " Yoko Hirano, Yoshiki Iba, Naoto Kuroda, Yoshihiro Kubota, and Satoshi Inagaki Chem.Lett., 48,521-524 (2019)	SEM [JSM-7001F] (走査電子顕微鏡) ICP-AES [ICPE-9000] (ICP 発光分光分析装置) Raman [inVia Reflex] (ラマンマイクロスコプ) ICP-MS [Agilent 7700x] (ICP 質量分析装置)
3	" Synthesis of novel aluminosilicate YNU-5 and enhancement of the framework thermal stability by post-synthesis treatment " Naoto Nakazawa, Yuka Yoshida, Satoshi Inagaki, Yoshihiro Kubota Microporous and Mesoporous Materials, 280, 66-74 (2019)	SEM [JSM-7001F] (走査電子顕微鏡) ICP-AES [ICPE-9000] (ICP 発光分光分析装置) NMR [AV-600] (核磁気共鳴装置 溶液/固体 600MHz)
4	" Microstructures and the Mechanical Properties of the Al-Li-Cu Alloy Strengthened by the Combined Use of Accumulative Roll Bonding and Aging " Yongpeng Tang, Shoichi Hirotsawa, Seiji Saikawa, Kenji Matsuda, Seungwon Lee, Zenji Horita, Daisuke Terada Adv. Eng. Mater., 22,1900561 (2020)	TEM [JEM-2100F] (透過電子顕微鏡)
5	" アルミニウム合金の状態図と時効析出現象への適用 " 廣澤 渉一 ふえらむ, 24, 5, 43-48, (2019)	TEM [JEM-2100F] (透過電子顕微鏡)
6	" Effect of nitrogen and iron in carbon nanowalls on oxygen reduction reaction " Moeka Taniguchi, Ryo Yoshie, Kazuma Akikubo, Akira Tateno, Kozue Hotozuka, Electrochimica Acta, 306, 132-142 (2019)	TEM [JEM-2100F] (透過電子顕微鏡)
7	" Solvent-mediated phase transformation of C60 crystals with well-defined hexagonal shape " Saori Yamamoto, Yuto Funamori, Yuko Kaneda, Makoto Tanimura, Masaru Tachibana Chemical Physics Letters, 730, 105-111 (2019)	TEM [JEM-2100F] (透過電子顕微鏡)
8	" 種々の初期集合組織を有するAZ31B および AZ80 マグネシウム合金の高温平面ひずみ圧縮変形下での組織と集合組織の形成機構 " 福富 洋志, 朴 亨均, 金 巻熙, 岡安 和人, 長谷川 誠 日本金属学会誌 第83巻 第8号 264-272 (2019)	SEM [JSM-7001F] (走査電子顕微鏡) SEM [VE-8800] (3D-リアルサーフェスビュー顕微鏡)
9	" アルミニウム線材の繰返し曲げ変形における 結晶格子回転と疲労亀裂形成 " 池谷 隼人, 梅澤 修, 福富 洋志 軽金属 69 (6), 2019	SEM [JSM-7001F] (走査電子顕微鏡) SEM [VE-8800] (3D-リアルサーフェスビュー顕微鏡)

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10	" Crystal Orientation Analysis on Stress Corrosion Cracking Facets in Austenitic Stainless Steels" Ryo Wakinaga, Norimitsu Koga, Osamu Umezawa, Motoaki Morita, Shinichi Mtda, and Tadashi Shinohara Key Engineering Materials, 810, 64-69 (2019)	SEM [VE-8800] (3D-リアルサーフェスビュー顕微鏡) SEM [SU8010] (電界放出形走査電子顕微鏡)
11	" Ionic ansport in highly concentrated lithium bis(fluorosulfonyl)amide electrolytes with keto ester solvents: structural implications for ion hopping conduction in liquid electrolytes" Shinji Kondou, Morgan L. Thomas, Toshihiko Mandai, Kazuhide Ueno, Kaoru Dokko and Masayoshi Watanabe Phys.Chem.Chem.Phys., 21, 5097 (2019)	NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz) XRD [XtaLAB PRO] (単結晶 X 線回折装置)
12	" Application of Protic Ionic Liquids to CO ₂ Separation in a Sulfonated Polyimide-Derived Ion Gel Membrane" Eri Hayashi, Morgan L. Thomas, Kei Hashimoto, Seiji Tsuzuki, Akika Ito, and Masayoshi Watanabe ACS Appl.Polym.Mater., 1,1579-1589 (2019)	NMR [ECA-500] (核磁気共鳴装置 溶液 500MHz) NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz)
13	" Solvation Structure of Poly(benzyl methacrylate) in a Solvate Ionic Liquid: Preferential Solvation of Li-Glyme Complex Cation" Kei Hashimoto, Yumi Kobayashi, Hisashi Kokubo, Takeshi Ueki, Koji Ohara, Kenta Fujii, and Masayoshi Watanabe J. Phys. Chem., B 123, 4098-4107 (2019)	MS [Autoflex speed] (MALDI TOF/TOF 質量分析装置) NMR [DRX-500] (核磁気共鳴装置 溶液 500MHz) NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz)
14	" Effects of Sulfur Loading, Cathode Porosity, and Electrolyte Amount on Li-S Battery Performance with Solvate Ionic Liquid Electrolyte" Yoshiharu Matsumae, Kenzo Obata, Ayumi Ando, Masato Yanagi, Yutaro Kamei, Kazuhide Ueno, Kaoru Dokko, and Masayoshi Watanabe Electrochemistry, 87(5), 254-259 (2019)	SEM [SU8010] (電界放出形走査電子顕微鏡)
15	" Sulfolane-Based Highly Concentrated Electrolytes of Lithium Bis(trifluoromethanesulfonyl)amide: Ionic Transport, Li-Ion Coordination, and Li-S Battery Performance" Azusa Nakanishi, Kazuhide Ueno, Daiki Watanabe, Yosuke Ugata, Yoshiharu Matsumae, Jiali Liu, Morgan L. Thomas, Kaoru Dokko, and Masayoshi Watanabe J. Phys. Chem., C 123, 14229-14238 (2019)	XRD [XtaLAB PRO] (単結晶 X 線回折装置) NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz)
16	" Li-ion hopping conduction in highly concentrated lithium bis(fluorosulfonyl)amide/dinitrile liquid electrolytes" Yosuke Ugata, Morgan L. Thomas, Toshihiko Mandai, Kazuhide Ueno, Kaoru Dokk and Masayoshi Watanabe Phys.Chem.Chem.Phys., 21, 9759 (2019)	XRD [XtaLAB PRO] (単結晶 X 線回折装置) NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz)
17	" Role of Cation Structure in CO ₂ Separation by Ionic Liquid/Sulfonated Polyimide Composite Membrane" Eri Hayashi, Kei Hashimoto, Morgan L. Thomas, Seiji Tsuzuki, and Masayoshi Watanabe Membranes, 9, 81 (2019)	NMR [DRX-500] (核磁気共鳴装置 溶液 500MHz)
18	" Glyme-Li salt equimolar molten solvates with iodide/triiodide redox anions" Keisuke Shigenobu, Azusa Nakanishi, Kazuhide Ueno, Kaoru Dokko, and Masayoshi Watanabe RSC Adv., 9, 22668 (2019)	NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz)

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19	" Thermodynamic Effect of Anion Activity on Electrochemical Reactions Involving Li ⁺ Ions in Room-Temperature Ionic Liquids" Ryoichi Tatara, Kazuhide Ueno, Kaoru Dokko, and Masayoshi Watanabe Chem. Electro. Chem., 6, 4444-4449 (2019)	NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz)
20	" Effect of ionic liquid structure on viscoelastic behavior of hydrogen-bonded micellar ion gels" Ryota Tamate, Kei Hashimoto, Xiang Lic, Mitsuhiro Shibayama, Masayoshi Watanabe Polymer, 178, 121694 (2019)	NMR [ECA-500] (核磁気共鳴装置 溶液 500MHz)
21	" Transport and Mechanical Properties of ABA-type Triblock Copolymer Ion Gels Correlated with Their Microstructures" Kei Hashimoto, Manabu Hirasawa, Hisashi Kokubo, Ryota Tamate, Xiang Li, Mitsuhiro Shibayama, and Masayoshi Watanabe Macromolecules, 52, 8430-8439 (2019)	TEM [JEM-2100F] (透過電子顕微鏡) NMR [DRX-500] (核磁気共鳴装置 溶液 500MHz)
22	" Excellent dispersibility of single-walled carbon nanotubes in highly concentrated electrolytes and application to gel electrode for Li-S batteries" Ryota Tamate, Aya Saruwatari, Azusa Nakanishi, Yoshiharu Matsumae, Kazuhide Ueno, Kaoru Dokko, Masayoshi Watanabe Electrochemistry Communications, 109, 106598 (2019)	TEM [JEM-2100F] (透過電子顕微鏡)
23	" Rheological and Ionic Transport Properties of Nanocomposite Electrolytes Based on Protic Ionic Liquids and Silica Nanoparticles" Mayeessa Mariam, Mahfuzul Hoque, Muhammed Shah Miran, Morgan L. Thomas, Izuru Kawamura, Kazuhide Ueno, Kaoru Dokko, and Masayoshi Watanabe Langmuir, 36, 148-158 (2020)	NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz) NMR [AV-600] (核磁気共鳴装置 溶液/固体 600MHz)
24	" Graphite-Lithium Sulfide Battery with a Single-Phase Sparingly Solvating Electrolyte" Taisho Seita, Yoshiharu Matsumae, Jiali Liu, Ryoichi Tatara, Kazuhide Ueno, Kaoru Dokko, and Masayoshi Watanabe ACS Energy Lett., 5, 1-7 (2020)	SEM [SU8010] (電界放出形走査電子顕微鏡)
25	" Fatigue Limit Improvement and Rendering Defects Harmless by Needle Peening for High Tensile Steel Welded Joint" Ryutaro Fueki, Koji Takahashi, and Mitsuru Handa Metals, 9, 143 (2019)	SEM [VE-8800] (3D-リアルサーフェスビュー顕微鏡)
26	" 表面欠陥が窒化処理鋼の疲労限度に及ぼす影響の定量的評価" 紺屋 純, 山田 明徳, 高橋 宏治 ばね論文集 第64号 45-51 (2019)	SEM [VE-8800] (3D-リアルサーフェスビュー顕微鏡)
27	" Evaluation of Surface Properties of Silicon Nitride Ceramics Treated with Laser Peening" K. Saigusa, K. Takahashi and N. Sibuya Int. Journal of Peening Science and Technology 1 (3), 221 - 232 (2019)	SEM [VE-8800] (3D-リアルサーフェスビュー顕微鏡)

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28	" High Temperature SiC Reactor Cleaning Using Chlorine Trifluoride Gas Achieved by Purified Pyrolytic Carbon Coating Film" Keisuke Kurashima, Kohei Shioda, Hitoshi Habuka, Hideki Ito, Materials Science Forum, 963, 141-145 (2019)	SEM [VE-8800] (3D-リアルサーフェスビュー顕微鏡) XPS/ESCA [Quantera SXM] (X線光電子分光装置)
29	" Exposure of Tantalum Carbide, Silicon Nitride and Aluminum Nitride to Chlorine Trifluoride Gas" Miyu Haruguchi, Ryohei Kawasaki, Hitoshi Habuka, and Yoshinao Takahashi ECS Journal of Solid State Science and Technology, 8 (3),75-179 (2019)	XPS/ESCA [Quantera SXM] (X線光電子分光装置) SEM [VE-8800] (3D-リアルサーフェスビュー顕微鏡)
30	" Influence of Metal and Polymer Substrate on SiC _x NyOz Film Formation by Non-Heat Assistance Plasma-Enhanced Chemical Vapor Deposition Using Monomethylsilane, Nitrogen and Argon Gases" Toru Watanabe, Kenta Hori, and Hitoshi Habuka Shin-ichi Mitani, Yoshinao Takahashi ECS Journal of Solid State Science and Technology, 8 (8), 407-411 (2019)	SEM [VE-8800] (3D-リアルサーフェスビュー顕微鏡) XPS/ESCA [Quantera SXM] (X線光電子分光装置)
31	" High-Temperature Reactor Cleaning Using Chlorine Trifluoride Gas for Silicon Carbide Chemical Vapor Deposition" Keisuke Kurashima, Masaya Hayashi, Hitoshi Habuka, Hideki Ito, Sin-ichi Mitani, Keisuke Kurashima, Masaya Hayashi, Hitoshi Habuka, Hideki Ito, Sin-ichi Mitani, ECS Journal of Solid State Science and Technology, 8 (8), 400-406 (2019)	SEM [VE-8800] (3D-リアルサーフェスビュー顕微鏡) XPS/ESCA [Quantera SXM] (X線光電子分光装置)
32	" Nanoscale infrared imaging analysis of carbonaceous chondrites to understand organic-mineral interactions during aqueous alteration" Yoko Kebukawa (癸生川陽子), Hanae Kobayashi, Norio Urayama, Naoki Baden, Masashi Kondo, Michael E. Zolensky, and Kensei Kobayashi PNAS, 116 (3),753-758 (2019)	ウルトラマイクロトム(UC7)
33	" Synthesis and properties of liquid pyrazine dyes" Jae-Young Lee, Tetsuya Aoyama, Masanobu Uchiyama, Shinya Matsumoto Dyes and Pigments, 174, 108030 (2020)	NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz) MS [NanoFrontierLD] (LIT-TOF タンデム型質量分析装置) FT-IR [FT-IR 6200] (フーリエ変換赤外分光装置)
34	" Cross-Coupling Reaction of Allylic Ethers with Aryl Grignard Reagents Catalyzed by a Nickel Pincer Complex" Toru Hashimoto, Kei Funatsu, Atsufumi Ohtani, Erika Asano, and Yoshitaka Yamaguchi Molecules, 24, 2296 (2019)	EA [vario-EL III] (CHNS 有機元素分析装置) XRD [XtaLAB PRO] (単結晶 X線回折装置) NMR [DRX-500] (核磁気共鳴装置 溶液 500MHz) NMR [DRX-500] (核磁気共鳴装置 溶液 500MHz)
35	" Cross-Coupling Reactions of Alkyl Halides with Aryl Grignard Reagents Using a Tetrachloroferrate with an Innocent Counteranion" Toru Hashimoto, Tsubasa Maruyama, Takamichi Yamaguchi, Yutak Matsubara, and Yoshitaka Yamaguchi Adv. Synth. Catal., 361, 4232- 4236 (2019)	NMR [ECA-500] (核磁気共鳴装置 溶液 500MHz) NMR [DRX-500] (核磁気共鳴装置 溶液 500MHz)
36	" A -Diketiminato-Based Pincer-Type Nickel(II) Complex: Synthesis and Catalytic Performance in the Cross-Coupling of Aryl Fluorides with Aryl Grignard Reagents" Nobutaka Kurisu, Erika Asano, Yuki Hatayama, Youji Kurihara, Toru Hashimoto, Kei Funatsu, Kazuyoshi Ueda, and Yoshitaka Yamaguchi Eur. J. Inorg. Chem., 126-133 (2019)	EA [vario-EL III] (CHNS 有機元素分析装置) NMR [DRX-500] (核磁気共鳴装置 溶液 500MHz) NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz) NMR [DRX-300] (核磁気共鳴装置 溶液 300MHz) XRD [XtaLAB PRO] (単結晶 X線回折装置)

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37	" Fire suppression efficiency of water mists containing organic solvents" Yusuke Koshiba, Yohei Yamamoto, Hideo Ohtani Journal of Loss Prevention in the Process Industries, 62, 103973 (2019)	LM [DMI3000 B] (倒立光学顕微鏡)
38	" Flame inhibition by calcium compounds: Effects of calcium compounds on downward flame spread over solid cellulosic fuel" Yusuke Koshiba, Takuya Haga, Hideo Ohtani Fire Safety Journal, 109, 102865 (2019)	SEM [VE-8800] (3D-リアルサーフェスビュー顕微鏡)
39	" Development of the radical CeO coupling reaction of phenols toward the synthesis of natural products comprising a diaryl ether skeleton" Kumpei Tanaka, Hiroaki Gotoh Tetrahedron, 75, 3875-3885 (2019)	NMR [ECA-500] (核磁気共鳴装置 溶液 500MHz) NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz) MS [NanoFrontierLD] (LIT-TOF タンデム型質量分析装置)
40	" Evaluation of Nitroxide Radical Catalyst Activity in C-H Activation Step of the Oxidative Coupling between 9,10-Dihydroacridine and Nitromethane" Kousuke Iwasaki, Yamazaki Yudai, and Hiroaki Gotoh Asian Journal of Chemistry, 31, 9, 2107-2110 (2019)	NMR [ECA-500] (核磁気共鳴装置 溶液 500MHz) NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz) NMR [DRX-300] (核磁気共鳴装置 溶液 300MHz)
41	" Effect of Side Chain Functional Groups on the DPPH Radical Scavenging Activity of Bisabolane-Type Phenols" Kazuya Ichikawa, Ryosuke Sasada, Kosuke Chiba, and Hiroaki Gotoh Antioxidants, 8, 65 (2019)	NMR [ECA-500] (核磁気共鳴装置 溶液 500MHz) NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz) NMR [DRX-300] (核磁気共鳴装置 溶液 300MHz)
42	" Polymerization inhibition mechanism of 1,4-naphthoquinone by experimentation and DFT calculations" Takuji Takahashi, Yujirou Ikejiri, Shunichi Himori and Hiroaki Gotoh Polymer Journal, 51, 929-934 (2019)	NMR [ECA-500] (核磁気共鳴装置 溶液 500MHz) NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz) NMR [DRX-300] (核磁気共鳴装置 溶液 300MHz)
43	" Chemical synthesis and band gap control of Ga ₂ O ₃ :Co nanocrystals" Kohki Mukai, Akira Tsuno, Ken-ichi Shudo, and Hiroyuki Otani Jpn. J. Appl. Phys., 58, SBBK05 (2019)	TEM [JEM-2100F] (透過電子顕微鏡) SEM [SU8010] (電界放出形走査電子顕微鏡) XRD [SmartLab] (粉末 X 線回折装置)
44	" A photon generating device composed of a quantum dot and a metamaterial element" Kohki Mukai, Sui Watanabe, Isao Okumura, and Takuya Sugimoto Jpn. J. Appl. Phys., 58, SBBI06 (2019)	SEM [SU8010] (電界放出形走査電子顕微鏡) SEM [VE-8800] (3D-リアルサーフェスビュー顕微鏡)
45	" Stabilization effects of carboxylate on pyrotechnic compositions including Mg powder in water" Yosuke Nishiwaki, Takehiro Matsunaga, Mieko Kumasaki Journal of Thermal Analysis and Calorimetry, 137,1493-1498 (2019)	SEM [JSM-7001F] (走査電子顕微鏡) XRD [SmartLab] (粉末 X 線回折装置)
46	" Effect of Magnesium Stearate Coating on Degradation of NH ₄ ClO ₄ /Mg by Moisture" Yosuke Nishiwaki, Takehiro Matsunaga, and Mieko Kumasaki Propellants Explos. Pyrotech., 44, 1028-1032 (2019)	XRD [SmartLab] (粉末 X 線回折装置)

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47	" Self-oriented growth of (020) MgSiO ₃ -orthopyroxene and (002) α -Mg ₂ SiO ₄ films using metal-organic chemical vapor deposition" Masakazu Ikai, Akihiko Ito Ceramics International, 45, 10,13567-13570 (2019)	XRD [ULTIMA IV] (多目的 X 線回折装置) SEM [SU8010] (電界放出形走査電子顕微鏡)
48	" Highly self-oriented growth of (020) and (002) monoclinic HfO ₂ thick films using laser chemical vapor deposition" Shogen Matsumoto, Yuko Kaneda, Akihiko Ito Ceramics International, 46, 1810-1815 (2020)	XRD [ULTIMA IV] (多目的 X 線回折装置) SEM [SU8010] (電界放出形走査電子顕微鏡) TEM [JEM-2100F] (透過電子顕微鏡)
49	" Selective self-oriented growth of (200), (002), and (020) d-WO ₃ films via metal-organic chemical vapor deposition" Akihiko Ito, Yuki Morishita Materials Letters, 258, 126817 (2020)	XRD [ULTIMA IV] (多目的 X 線回折装置)
50	" Self-oriented growth of β -Yb ₂ Si ₂ O ₇ and X1/X2-Yb ₂ SiO ₅ coatings using laser chemical vapor deposition" Akihiko Ito, Masato Sekiyama, Tomohiro Hara, Takashi Goto Ceramics International 45, 10, 13567-13570 (2019)	XRD [ULTIMA IV] (多目的 X 線回折装置)
51	" Effect of Heat Treatment at (β + γ) Two Phase Region on Fracture Toughness in TiAl Intermetallic Compound" Makoto Hasegawa, Tomohiro Inui, Ivo Dlouh ý Key Engineering Materials, 810, 21-26 (2019)	SEM [JSM-7001F] (走査電子顕微鏡)
52	" Microstructural Change and Fracture Behavior under Different Heat Exposure Conditions on Thermal Barrier Coatings" Makoto Hasegawa, Kotatsu Hirata, Ivo Dlouh ý Key Engineering Materials, 810,27-33 (2019)	SEM [JSM-7001F] (走査電子顕微鏡) EPMA [JXA-8530F] (電子線マイクロアナライザー)
53	" エアロゾルデポジション法によるムライト膜の形成と大気熱曝露にともなう組織変化" 渋谷 俊貴, 水野 泰輔, 井内 敦久, 長谷川 誠 日本金属学会誌 第 83 巻 第 6 号 186-192 (2019)	SEM [SU8010] (電界放出形走査電子顕微鏡) XRD [ULTIMA IV] (多目的 X 線回折装置)
54	" Microstructure evolution under high temperature deformation of CoNiCrAlY bond coat alloy" Makoto Hasegawa, Maiko Iwashita, Yuji Kubota, Petr Dym á ě ek, Ferdinand Dobe š Materials Science & Engineering, A 756, 237-247 (2019)	SEM [JSM-7001F] (走査電子顕微鏡) XRD [ULTIMA IV] (多目的 X 線回折装置)
55	" High-temperature creep of a CoNiCrAlY bond coat alloy" Ferdinand Dobe š Petr Dym á ě ek, Makoto Hasegawa, Maiko Iwashita Materials Science & Engineering A, 759, 272-277 (2019)	SEM [JSM-7001F] (走査電子顕微鏡)
56	" Texture Evolution of Nickel Coatings Fabricated by Aerosol Deposition" Makoto Hasegawa, Kyonosuke Kimura, Koichiro Aoki, Masahiro Komuro Materials Transactions, 60, 11, 2305-2310 (2019)	SEM [SU8010] (電界放出形走査電子顕微鏡) SEM [JSM-7001F] (走査電子顕微鏡) XRD [ULTIMA IV] (多目的 X 線回折装置)

	発表論文(タイトル, 著者名, 掲載誌名, 巻, ページ, 年)	利用機器
57	" Separation of palladium by solvent extraction with methylamino-bis-N,Ndioctylacetamide and direct electrodeposition from loaded organic phase" Masahiko Matsumiya, Yueqi Song, Yusuke Tsuchida, Yuji Sasaki Separation and Purification Technology, 234, 115841, 1-8 (2020)	EDS-SEM [JSM-6510LA] (エネルギー分散型 X 線分析走査電子顕微鏡)
58	" 千葉県君津市川谷地域に露出する中部更新統柿ノ木台層から産出する冷湧水化石群集：その時空分布と共産する自生炭酸塩" 間嶋 隆一, 越智 真弓, 三浦 美佐, 人見真紀子, 斎藤 猛, 並木 勇樹, 大塚 悠佑, 清水 秀倫, 野崎 篤, 宇都宮 正志, 楠 雅枝, 佐藤 圭, 河瀧 俊吾, 和仁 良二, 中村 栄子, 坂 井 三郎, 和田 秀樹, 北里 洋 地質学雑誌 第 125 巻 第 9 号 655-683 (2019)	EDS-SEM [JSM-6510LA] (エネルギー分散型 X 線分析走査電子顕微鏡)
59	" A new species of Claviramus (Annelida, Sabellida, Sabellidae) from the Ariake Inland Sea, Kyushu, Japan" Eijiroh Nishi, Katsuhiko Tanaka, Mar í a Ana Tovar-Hern ández ZooKeys, 880, 25-32(2019)	EDS-SEM [JSM-6510LA] (エネルギー分散型 X 線分析走査電子顕微鏡)
60	" Access to Electron-Deficient 2,2-Disubstituted Chromanes: A Highly Regioselective One-Pot Synthesis via an Inverse-Electron-Demand [4+2] Cycloaddition of ortho-Quinone Methides" Kenta Tanaka, Mami Kishimoto, Yosuke Asada, Yuta Tanaka, Yujiro Hoshino, and Kiyoshi Honda J.Org.Chem.,84,13858-13870 (2019)	NMR [ECA-500] (核磁気共鳴装置 溶液 500MHz) NMR [DRX-500] (核磁気共鳴装置 溶液 500MHz) NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz) XRD [XtaLAB PRO] (単結晶 X 線回折装置) FT-IR [FT-IR 6200] (フーリエ変換赤外分光装置) UV-Vis [V560] (紫外可視分光光度計) MS [NanoFrontierLD] (LIT-TOF タンデム型質量分析装置)
61	" Design and Synthesis of Optically Pure Dibenzo-difuso-azacentrotriquinacene-based Pseudo-C ₂ -Symmetric Cyclic Hydroxamic Acid" Naoya Ohtsuka, Masato Seki, Yujiro Hoshino, and Kiyoshi Honda Chem. Lett., 48, 1328-1331 (2019)	NMR [ECA-500] (核磁気共鳴装置 溶液 500MHz) NMR [DRX-500] (核磁気共鳴装置 溶液 500MHz) NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz) MS [NanoFrontierLD] (LIT-TOF タンデム型質量分析装置) XRD [XtaLAB PRO] (単結晶 X 線回折装置) FT-IR [FT-IR 6200] (フーリエ変換赤外分光装置)
62	" Friedel-Crafts approach to the one-pot synthesis of methoxy-substituted thioxanthylum salts" Kenta Tanaka, Yuta Tanaka, Mami Kishimoto, Yujiro Hoshino, and Kiyoshi Honda Beilstein J. Org. Chem.,15, 2105-2112 (2019)	NMR [ECA-500] (核磁気共鳴装置 溶液 500MHz) NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz) NMR [DRX-500] (核磁気共鳴装置 溶液 500MHz) XRD [XtaLAB PRO] (単結晶 X 線回折装置) MS [NanoFrontierLD] (LIT-TOF タンデム型質量分析装置) FT-IR [FT-IR 6200] (フーリエ変換赤外分光装置) UV-Vis [V560] (紫外可視分光光度計) FL [FP-8500] (蛍光分光光度計)
63	" Organophotoredox-Catalyzed Intermolecular Oxa-[4+2] Cycloaddition Reactions" Kenta Tanaka, Daichi Omata, Yosuke Asada, Yujiro Hoshino, and Kiyoshi Honda J. Org. Chem., 84, 10669-10678 (2019)	NMR [ECA-500] (核磁気共鳴装置 溶液 500MHz) NMR [DRX-500] (核磁気共鳴装置 溶液 500MHz) NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz) XRD [XtaLAB PRO] (単結晶 X 線回折装置) FL [FP-8500] (蛍光分光光度計) MS [NanoFrontierLD] (LIT-TOF タンデム型質量分析装置) FT-IR [FT-IR 6200] (フーリエ変換赤外分光装置) UV-Vis [V560] (紫外可視分光光度計)

	発表論文(タイトル, 著者名, 掲載誌名, 巻, ページ, 年)	利用機器
64	<p>" CsF-Promoted Desilylation and Ring-Contraction Reaction of Electron-Deficient 3-Silyl-2H-chromenes to 2-Benzylbenzofurans"</p> <p>Kiyoshi Honda, Kenta Tanaka, Mayumi Sukekawa, Yujiro Hoshino, Mami Kishimoto Japan Institute of Heterocyclic Chemistry, 9, 1, 145 - 170 (2019)</p>	<p>NMR [ECA-500] (核磁気共鳴装置 溶液 500MHz) NMR [DRX-500] (核磁気共鳴装置 溶液 500MHz) NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz) MS [NanoFrontierLD] (LIT-TOF タンデム型質量分析装置) FT-IR [FT-IR 6200] (フーリエ変換赤外分光装置) XRD [XtaLAB PRO] (単結晶 X 線回折装置)</p>
65	<p>" Highly Selective One-Pot Synthesis of Polysubstituted Isoflavanes using Styryl Ethers and Electron-Withdrawing ortho-Quinone Methides Generated In Situ"</p> <p>Kenta Tanaka, Mami Kishimoto, Naoya Ohtsuka, Yoshinori Iwama, Hiroki Wada, Yujiro Hoshino, Kiyoshi Honda Synlett, 30, 189-192 (2019)</p>	<p>NMR [ECA-500] (核磁気共鳴装置 溶液 500MHz) NMR [DRX-500] (核磁気共鳴装置 溶液 500MHz) NMR [ECX-400] (核磁気共鳴装置 溶液 400MHz) MS [NanoFrontierLD] (LIT-TOF タンデム型質量分析装置) FT-IR [FT-IR 6200] (フーリエ変換赤外分光装置) UV-Vis [V560] (紫外可視分光光度計)</p>
66	<p>" Electronic state of nitrogen in doped titanium dioxide"</p> <p>H. Funabiki, K. Ozawa and T. Sekiya Journal of PhysicsConf. Series, 1220, 012014 (2019)</p>	<p>XPS/ESCA [Quantera SXM] (X 線光電子分光装置) ESR [JES-FA200] (電子スピン共鳴装置) XRD [SmartLab] (粉末 X 線回折装置)</p>

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